优先队列（PriorityQueue）

回顾

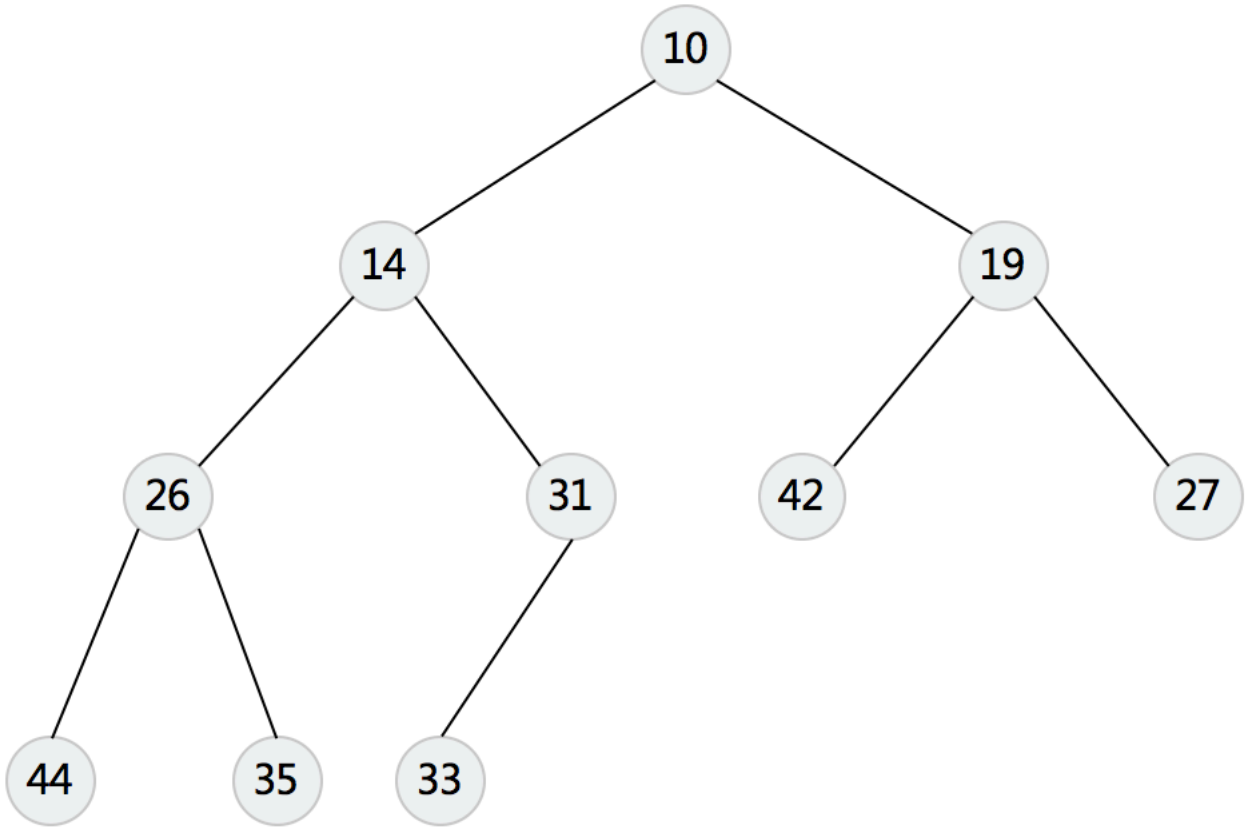
1. Stack - First In First Out (FIFO)
    - Array or Linked List
2. Queue - First In Last Out (FILO)
    - Array or Linked List

本节内容

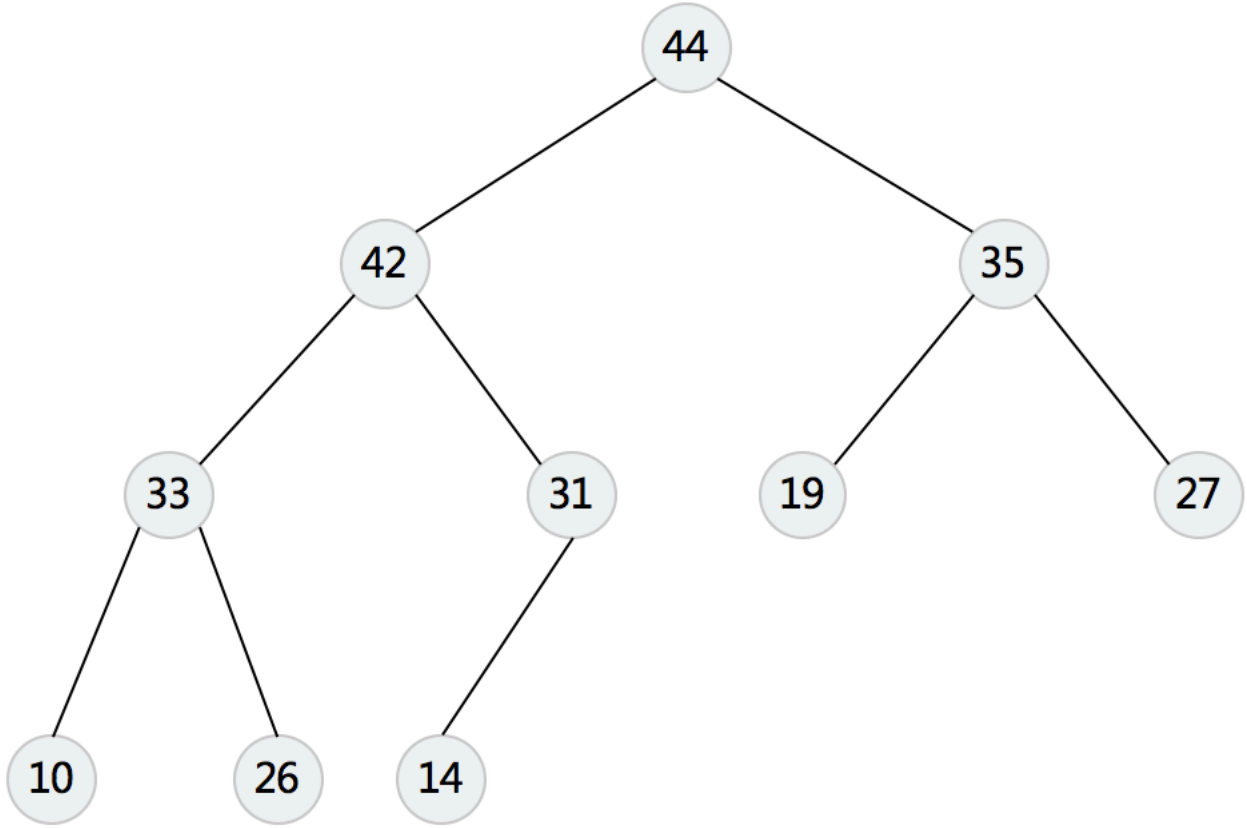
1. Stack - First In First Out (FIFO)
    - Array or Linked List
2. Queue - First In Last Out (FILO)
    - Array or Linked List
3. PriorityQueue - 优先队列
    - 正常入、按照优先级出

1. Heap (Binary, Binomial, Fibonacci)
2. Binary Search Tree

Mini Heap



Max Heap



Heap Wiki

- https://en.wikipedia.org/wiki/Heap_(data_structure)
- Google 搜索 **heap** 或者 **堆**

Operation	Binary[7]	Leftist	Binomial[7]	Fibonacci[7][8]	Pairing[9]	Brodal[10][b]	Rank-pairing[12]	Strict Fibonacci[13]	2-3 heap
find-min	$\Theta(1)$	$\Theta(1)$	$\Theta(\log n)$	$\Theta(1)$	$\Theta(1)$	$\Theta(1)$	$\Theta(1)$	$\Theta(1)$	?
delete-min	$\Theta(\log n)$	$\Theta(\log n)$	$\Theta(\log n)$	$O(\log n)$[c]	$O(\log n)$[c]	$O(\log n)$	$O(\log n)$[c]	$O(\log n)$	$O(\log n)$[c]
insert	$O(\log n)$	$\Theta(\log n)$	$\Theta(1)$[c]	$\Theta(1)$	$\Theta(1)$	$\Theta(1)$	$\Theta(1)$	$\Theta(1)$	$O(\log n)$[c]
decrease-key	$\Theta(\log n)$	$\Theta(n)$	$\Theta(\log n)$	$\Theta(1)$[c]	$o(\log n)$[c][d]	$\Theta(1)$	$\Theta(1)$[c]	$\Theta(1)$	$\Theta(1)$
merge	$\Theta(n)$	$\Theta(\log n)$	$O(\log n)$[e]	$\Theta(1)$	$\Theta(1)$	$\Theta(1)$	$\Theta(1)$	$\Theta(1)$	?

实战题目

1. https://leetcode.com/problems/kth-largest-element-in-a-stream/discuss/149050/Java-Priority-Queue
2. https://leetcode.com/problems/top-k-frequent-words/description/